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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,044	12/15/2003	Hiroyuki Inoue	9976-23US (OB0051US)	4060
570	7590	05/23/2006	EXAMINER	
AKIN GUMP STRAUSS HAUER & FELD L.L.P.			BEATTY, ROBERT B	
ONE COMMERCE SQUARE			ART UNIT	
2005 MARKET STREET, SUITE 2200			PAPER NUMBER	
PHILADELPHIA, PA 19103			2852	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/736,044

Applicant(s)

INOUE ET AL.

Examiner

Robert Beatty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16, 19, 20 and 24-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 24, 25, 27, 28, 30-32, 34 and 39-41 is/are rejected.
- 7) ☒ Claim(s) 26, 29, 33, 35-38 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The drawings are objected to because in Figs 4 and 14, the boxes should have labels located inside the boxes; in Fig.28, step S81, change "Proses" to --Processes-- and in step 85, change "Prenting Proses" to --Preventing Processes--. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the temperature

sensor "under" the fixing unit as recited in claim 29 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

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the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24-25,27-28,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara (JP# 09-281871).

Hagiwara teach an image forming apparatus comprising a plurality of image forming sections which include photosensitive drums 11a - 11d, a conveying belt 7 in contact with the photosensitive drums, a driving roller 8 for driving the conveying belt, and a fixing unit 16 located downstream of the conveying belt in the direction of transport of a recording medium. The conveying belt drive roller will have a temperature sensor 23 in contact with it and in accordance with the detected temperature an image forming process will be controlled on the basis of the temperature. Specifically, Hagiwara teach everything claimed except the temperature sensor also detecting the temperature of the conveying belt and the photosensitive drum near the driving roller. It would have been obvious to one of ordinary skill in the art at the time the invention was made that since the temperature sensor detects the temperature of the drive roller 8 and the belt is in contact with the drive roller than the temperature sensor also detects the temperature of the conveying belt (since both the belt and roller will come to thermal equilibrium). Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made that because of the close proximity of the downstream photosensitive drum to the drive roller, than the temperature sensor will detect substantially the same temperature as the

photosensitive drum. It is noted applicant's specification also assumes the same conditions for detecting the temperature of the photosensitive drum (i.e. the detector is not actually in contact with the photosensitive drum but nearby).

4. Claims 30-31,39,41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara (JP# 09-281871).in view of Hirose et al.

Hagiwara taught supra discloses most of what is claimed except when the detected temperature is higher than a threshold to temporarily stop the image forming apparatus, to reduce the recording sheet conveyance speed, and to widen the conveyance interval of the recording sheet. Hirose teach an image forming apparatus having a temperature sensor 25, 125-128 at various locations in the apparatus and when the temperature is above a threshold, the image forming apparatus is temporarily stopped (col.5, lines 39-46), widens the conveyance interval between recording sheets (col.5, lines 49-57), or reduces speed of the recording sheet (col.5, lines 15-27) . It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakayama with the concept of either temporarily stopping, slowing down, or lengthening the conveyance interval between recording sheets because trouble and abnormal images due to high internal temperatures can be prevented.

5. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara (JP# 09-281871).in view of Fujiwara (JP# 2000-347531).

Hagiwara taught supra discloses most of what is claimed except reducing the fixing temperature depending on the detected temperature of the apparatus/transfer body. Fujiwara teach lowering the target temperature of the fixing roller is a detected temperature 18 detects a higher than normal temperature. It would have been obvious to one of ordinary skill in the art at the time the invention was made to lower the fixing target temperature because defective fixing and wrinkles in the images can be prevented.

6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara (JP# 09-281871) in view of Hirose as applied to claims 30-31, 39, 41 and further in view of Fujiwara (JP# 2000-347531).

Hagiwara and Hirose taught supra discloses most of what is claimed except reducing the fixing temperature depending on the detected temperature of the apparatus/transfer body. Fujiwara teach lowering the target temperature of the fixing roller is a detected temperature 18 detects a higher than normal temperature. It would have been obvious to one of ordinary skill in the art at the time the invention was made to lower the fixing target temperature because defective fixing and wrinkles in the images can be prevented.

7. Claims 26,29,33,35-38,42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 1-16,19-20 are allowable over the prior art of record.

9. Applicant's arguments with respect to claims 24-42 have been considered but are moot in view of the new ground(s) of rejection.

Applicant added new claims which required a new grounds of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will



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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Robert Beatty", with a long, sweeping horizontal line extending from the end of the signature.

Robert Beatty  
Primary Examiner  
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May 19, 2006